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DATE: 12/18/2001
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VERIFICATION SUMMARY REPORT
PATENT APPLICATION

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GENERAL INFORMATION SECTION

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TREATMENT OF
6, ALLERGY
8,<130> 11514153US1
10,<140> 09/701,623
11,<141> 2000-12-01
13,<150> PCT/US99/13959
14,<151> 1999-06-21
16,<150> 09/100,287
17,<151> 1998-06-20
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21,<170> PatentIn Ver. 2.1

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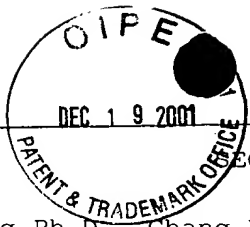
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STATISTICS SUMMARY

 Application Serial Number: 09/701,623
 Alpha or Numeric: Numeric
 Application Class:
 Application File Date: 2000-12-01
 Art Unit:
 Software Application: PatentIn
 Total Number of Sequences: 91
 Total Nucleotides: 0
 Total Amino Acids: 4055
 Number of Errors: 0
 Number of Warnings: 18
 Number of Corrections: 0

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 <307> 1995

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Asp Gly Gln Lys Ala Thr Asn Ile Phe Pro Tyr Thr Ala Pro Gly Thr
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Lys Glu Gly Asn Val Thr Ser Thr His Ser Glu Leu Asn Ile Thr Gln
 65 70 75 80

Gly Glu Trp Val Ser Gln Lys Thr Tyr Thr Cys Gln Gly Phe Thr Phe
 85 90 95

Lys Asp Glu Ala Arg Lys Cys Ser Glu Ser Asp Pro Arg Gly Val Thr
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Ser Tyr Leu Ser Pro Pro Ser Pro Leu Asp Leu Tyr Val His Lys Ala
 115 120 125

Pro Lys Ile Thr Cys Leu Val Val Asp Leu Ala Thr Met Glu Gly Met

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Asn Leu Thr Trp Tyr Arg Glu Ser Lys Glu Pro Val Asn Pro Gly Pro				
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Leu Asn Lys Lys Asp His Phe Asn Gly Thr Ile Thr Val Thr Ser Thr				
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Leu Pro Val Asn Thr Asn Asp Trp Ile Glu Gly Glu Thr Tyr Tyr Cys				
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Arg Val Thr His Pro His Leu Pro Lys Asp Ile Val Arg Ser Ile Ala				
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Lys Ala Pro Gly Lys Arg Ala Pro Pro Asp Val Tyr Leu Phe Leu Pro				
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Pro Glu Glu Glu Gln Gly Thr Lys Asp Arg Val Thr Leu Thr Cys Leu				
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Ile Gln Asn Phe Phe Pro Ala Asp Ile Ser Val Gln Trp Leu Arg Asn				
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<303> J. Mol. Biol.
<304> 177
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<307> 1984

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<303> EMBO J.
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Ser Cys Asp Pro Asn Ala Phe His Ser Thr Ile Gln Leu Tyr Cys Phe
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Val Tyr Gly His Ile Gln Asn Asp Val Ser Ile His Trp Leu Met Asp
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Asp Arg Lys Ile Tyr Asp Thr His Ala Gln Asn Val Leu Ile Lys Glu
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Glu Gly Lys Leu Ala Ser Thr Tyr Ser Arg Leu Asn Ile Thr Gln Gln
65 70 75 80

Gln Trp Met Ser Glu Ser Thr Phe Thr Cys Lys Val Thr Ser Gln Gly
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Glu Asn Tyr Trp Ala His Thr Arg Arg Cys Ser Asp Asp Glu Pro Arg
100 105 110

Gly Val Ile Thr Tyr Leu Ile Pro Pro Ser Pro Leu Asp Leu Tyr Glu

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Asn Gly Thr Pro Lys Leu Thr Cys Leu Val Leu Asp Leu Glu Ser Glu		
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Tyr Gln Cys Arg Val Asp His Pro His Phe Pro Lys Pro Ile Val Arg		
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Ser Ile Thr Lys Ala Leu Gly Leu Arg Ser Ala Pro Glu Val Tyr Val		
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Phe Leu Pro Pro Glu Glu Glu Glu Lys Asn Lys Arg Thr Leu Thr Cys		
225	230	235
Leu Ile Gln Asn Phe Phe Pro Glu Asp Ile Ser Val Gln Trp Leu Gln		
245	250	255
Asp Ser Lys Leu Ile Pro Lys Ser Gln His Ser Thr Thr Thr Pro Leu		
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Lys Thr Asn Gly Ser Asn Gln Arg Phe Phe Ile Phe Ser Arg Leu Glu		
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Phe	Ile	Tyr	Gly	His	Ile	Leu	Asn	Asp	Val	Ser	Val	Ser	Trp	Leu	Met	35	40	45	
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Glu	Glu	Gly	Lys	Leu	Ala	Ser	Thr	Cys	Ser	Lys	Leu	Asn	Ile	Thr	Glu	65	70	75	80
Gln	Gln	Trp	Met	Ser	Glu	Ser	Thr	Phe	Thr	Cys	Arg	Val	Thr	Ser	Gln	85	90	95	
Gly	Cys	Asp	Tyr	Leu	Ala	His	Thr	Arg	Arg	Cys	Pro	Asp	His	Glu	Pro	100	105	110	
Arg	Gly	Ala	Ile	Thr	Tyr	Leu	Ile	Pro	Pro	Ser	Pro	Leu	Asp	Leu	Tyr	115	120	125	
Gln	Asn	Gly	Ala	Pro	Lys	Leu	Thr	Cys	Leu	Val	Val	Asp	Leu	Glu	Ser	130	135	140	
Glu	Lys	Asn	Val	Asn	Val	Thr	Trp	Asn	Gln	Glu	Lys	Lys	Thr	Ser	Val	145	150	155	160
Ser	Ala	Ser	Gln	Trp	Tyr	Thr	Lys	His	His	Asn	Asn	Ala	Thr	Thr	Ser	165	170	175	
Ile	Thr	Ser	Ile	Leu	Pro	Val	Val	Ala	Lys	Asp	Trp	Ile	Glu	Gly	Tyr	180	185	190	
Gly	Tyr	Gln	Cys	Ile	Val	Asp	Arg	Pro	Asp	Phe	Pro	Lys	Pro	Ile	Val	195	200	205	
Arg	Ser	Ile	Thr	Lys	Thr	Pro	Gly	Gln	Arg	Ser	Ala	Pro	Glu	Val	Tyr	210	215	220	
Val	Phe	Pro	Pro	Pro	Glu	Glu	Glu	Ser	Glu	Asp	Lys	Arg	Thr	Leu	Thr	225	230	235	240
Cys	Leu	Ile	Gln	Asn	Phe	Phe	Pro	Glu	Asp	Ile	Ser	Val	Gln	Trp	Leu	245	250	255	

Gly Asp Gly Lys Leu Ile Ser Asn Ser Gln His Ser Thr Thr Thr Pro
 260 265 270

Leu Lys Ser Asn Gly Asn Gln Gly Phe Phe Ile Phe Ser Arg Leu Glu
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 Xaa Xaa Glu Ile Xaa Xaa Val Ile Val Xaa Xaa Xaa Glu Xaa Xaa Gly
 1 5 10 15
 Gly Cys Gly Glu Thr Tyr Gln Ser Arg Val Thr His Pro His Leu Pro
 20 25 30
 Arg Ala Leu Met Arg Ser Thr Thr Lys Cys

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<210> 22
<211> 60
<212> PRT
<213> Artificial Sequence

<220>
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synthesized from amino acids with no genetic
material as source

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<223> I, M, L

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<223> K, R

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<223> H, T

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<223> K, R

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<223> I, M, L

<220>
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<222> (32)
<223> G, T

<220>
<221> MOD_RES
<222> (33)
<223> I, M, V

<400> 22
Thr Ala Lys Ser Lys Lys Phe Pro Ser Tyr Thr Ala Thr Tyr Gln Phe
1 5 10 15

Gly Gly Xaa Xaa Glu Ile Xaa Xaa Val Ile Val Xaa Xaa Xaa Glu Xaa
20 25 30

Xaa Gly Gly Cys Gly Glu Thr Tyr Gln Ser Arg Val Thr His Pro His
35 40 45

Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys Cys
50 55 60

<210> 23
<211> 56
<212> PRT
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<220>
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synthesized from amino acids with no genetic
material as source

<220>
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<222> (15)
<223> I, M, L

<220>
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<223> S, T

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<222> (19)
<223> K, R

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 <222> (20)
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 <223> H, T

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 <222> (25)
 <223> K, R

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 <223> I, M, L

<220>
 <221> MOD_RES
 <222> (28)
 <223> G, T

<220>
 <221> MOD_RES
 <222> (29)
 <223> I, M, V

<400> 23
 Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Lys Glu Gly Gly Xaa Xaa
 1 5 10 15
 Glu Ile Xaa Xaa Val Ile Val Xaa Xaa Xaa Glu Xaa Xaa Gly Gly Cys
 20 25 30
 Gly Glu Thr Tyr Gln Ser Arg Val Thr His Pro His Leu Pro Arg Ala
 35 40 45
 Leu Met Arg Ser Thr Thr Lys Cys
 50 55

<210> 24
 <211> 46
 <212> PRT

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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<220>

<221> MOD_RES

<222> (4)

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<223> K, R

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<222> (8)

<223> G, T

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<222> (12)

<223> H, T

<220>

<221> MOD_RES

<222> (13)

<223> K, R

<220>

<221> MOD_RES

<222> (16)

<223> G, T

<400> 24

Ile Ser Ile Xaa Glu Ile Xaa Xaa Val Ile Val Xaa Xaa Ile Glu Xaa
1 5 10 15

Ile Leu Phe Gly Gly Cys Gly Tyr Gly Tyr Gln Ser Ile Val Asp His
20 25 30

Pro Asp Phe Pro Lys Pro Ile Val Arg Ser Ile Thr Lys Cys
35 40 45

<210> 25
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 25
Lys Lys Lys Ile Ile Thr Ile Thr Arg Ile Ile Thr Ile Ile Thr Thr
1 5 10 15
Ile Asp Gly Gly Cys Gly Tyr Gly Tyr Gln Ser Ile Val Asp His Pro
20 25 30
Asp Phe Pro Lys Pro Ile Val Arg Ser Ile Thr Lys Cys
35 40 45

<210> 26
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 26
Lys Lys Lys Ile Ile Thr Ile Thr Arg Ile Ile Thr Ile Ile Thr Thr
1 5 10 15
Ile Asp Gly Gly Cys Gly Glu Thr Tyr Tyr Ser Arg Val Thr His Pro
20 25 30
His Leu Pro Lys Asp Ile Val Arg Ser Ile Ala Lys Cys
35 40 45

<210> 27
<211> 46
<212> PRT
<213> Artificial Sequence

<220>

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<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<220>

<221> MOD_RES

<222> (1)

<223> I, M, L

<220>

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<222> (2)

<223> S, T

<220>

<221> MOD_RES

<222> (7)

<223> K, L

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<222> (8)

<223> G, R

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<221> MOD_RES

<222> (9)

<223> V, T

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<222> (10)

<223> I, V

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<222> (14)

<223> I, T

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<223> E, R

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<223> G, M

<220>

<221> MOD_RES

<222> (19)

<223> F, T

<220>

<221> MOD_RES

<222> (20)

<223> G, M

<400> 27

Xaa Xaa Ile Ser Glu Ile Xaa Gly Val Xaa Val His Lys Xaa Xaa Xaa
1 5 10 15

Ile Leu Xaa Xaa Gly Cys Gly Glu Thr Tyr Tyr Ser Arg Val Thr His
20 25 30

Pro His Leu Pro Lys Asp Ile Val Arg Ser Ile Ala Lys Cys
35 40 45

<210> 28

<211> 49

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 28

Cys Ala Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro
1 5 10 15

Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile Thr Ser Leu
20 25 30

Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Asn Leu Thr Trp Ser
35 40 45

Arg

<210> 29

<211> 60

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 29

Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys Ala Asp Ser Asn
1 5 10 15

Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser Pro Phe Asp Leu
20 25 30

Phe Ile Arg Lys Ser Pro Thr Ile Thr Ser Leu Val Val Asp Leu Ala
35 40 45

Pro Ser Lys Gly Thr Val Asn Leu Thr Trp Ser Arg
50 55 60

<210> 30

<211> 64

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 30

Gln Val Thr Tyr Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys
1 5 10 15

Ala Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser
20 25 30

Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile Thr Ser Leu Val
35 40 45

Val Asp Leu Ala Pro Ser Lys Gly Thr Val Asn Leu Thr Trp Ser Arg
50 55 60

<210> 31
 <211> 76
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Peptide
 synthesized from amino acids with no genetic
 material as source

<400> 31
 Gln Lys His Trp Leu Ser Asp Arg Thr Tyr Thr Ser Gln Val Thr Tyr
 1 5 10 15
 Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys Ala Asp Ser Asn
 20 25 30
 Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser Pro Phe Asp Leu
 35 40 45
 Phe Ile Arg Lys Ser Pro Thr Ile Thr Ser Leu Val Val Asp Leu Ala
 50 55 60
 Pro Ser Lys Gly Thr Val Asn Leu Thr Trp Ser Arg
 65 70 75

<210> 32
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Peptide
 synthesized from amino acids with no genetic
 material as source

<400> 32
 Cys Ala Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro
 1 5 10 15
 Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile Thr Ser Leu
 20 25 30
 Val Val Asp
 35

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<210> 33
<211> 46
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 33
Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys Ala Asp Ser Asn
1 5 10 15
Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser Pro Phe Asp Leu
20 25 30
Phe Ile Arg Lys Ser Pro Thr Ile Thr Ser Leu Val Val Asp
35 40 45

<210> 34
<211> 50
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 34
Gln Val Thr Tyr Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys
1 5 10 15
Ala Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser
20 25 30
Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile Thr Ser Leu Val
35 40 45
Val Asp
50

<210> 35
<211> 62

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 35

Gln Lys His Trp Leu Ser Asp Arg Thr Tyr Thr Ser Gln Val Thr Tyr
1 5 10 15

Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys Ala Asp Ser Asn
20 25 30

Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser Pro Phe Asp Leu
35 40 45

Phe Ile Arg Lys Ser Pro Thr Ile Thr Ser Leu Val Val Asp
50 55 60

<210> 36

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 36

Cys Ala Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro
1 5 10 15

Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile
20 25

<210> 37

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic

material as source

<400> 37

Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys Ala Asp Ser Asn
1 5 10 15

Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser Pro Phe Asp Leu
20 25 30

Phe Ile Arg Lys Ser Pro Thr Ile
35 40

<210> 38

<211> 44

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 38

Gln Val Thr Tyr Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys
1 5 10 15

Ala Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser
20 25 30

Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile
35 40

<210> 39

<211> 56

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 39

Gln Lys His Trp Leu Ser Asp Arg Thr Tyr Thr Ser Gln Val Thr Tyr
1 5 10 15

Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys Ala Asp Ser Asn
 20 25 30

Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser Pro Phe Asp Leu
 35 40 45

Phe Ile Arg Lys Ser Pro Thr Ile
 50 55

<210> 40

<211> 76

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
 synthesized from amino acids with no genetic
 material as source

<400> 40

Gln Lys His Trp Leu Ser Asp Arg Thr Tyr Thr Cys Gln Val Thr Tyr
 1 5 10 15

Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys Ala Asp Ser Asn
 20 25 30

Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser Pro Phe Asp Leu
 35 40 45

Phe Ile Arg Lys Ser Pro Thr Ile Thr Cys Leu Val Val Asp Leu Ala
 50 55 60

Pro Ser Lys Gly Thr Val Asn Leu Thr Trp Ser Arg
 65 70 75

<210> 41

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
 synthesized from amino acids with no genetic
 material as source

<400> 41

Cys Lys Gln Arg Asn Gly Thr Leu Thr Cys
 1 5 10

<210> 42
 <211> 45
 <212> PRT
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<220>
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 synthesized from amino acids with no genetic
 material as source

<400> 42
 Gln Lys His Trp Leu Ser Asp Arg Thr Tyr Thr Cys Gln Val Thr Tyr
 1 5 10 15

Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys Cys Ala Asp Ser Asn
 20 25 30

Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser Pro
 35 40 45

<210> 43
 <211> 34
 <212> PRT
 <213> Artificial Sequence

<220>
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 synthesized from amino acids with no genetic
 material as source

<400> 43
 Cys Pro Ser Lys Gly Thr Val Asn Leu Thr Trp Ser Arg Ala Ser Gly
 1 5 10 15

Lys Pro Val Asn His Ser Thr Arg Lys Glu Glu Lys Gln Arg Asn Gly
 20 25 30

Thr Cys

<210> 44
 <211> 33

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<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 44

Cys Pro Val Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys
1 5 10 15

Arg Val Thr His Pro His Leu Pro Arg Ala Leu Met Arg Ser Thr Thr
20 25 30

Cys

<210> 45
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 45

Ser Thr Thr Lys Thr Ser Gly Pro Arg Ala Ala Pro Glu Val
1 5 10

<210> 46
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 46

Cys Trp Ser Arg Ala Ser Gly Lys Pro Val Cys Asn His Ser
1 5 10

<210> 47
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 47
Cys Ser Arg Pro Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr
1 5 10 15

Ile Thr Cys

<210> 48
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 48
Cys Val Gly Thr Arg Asp Trp Ile Glu Gly Glu Pro Cys
1 5 10

<210> 49
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 49
Cys Pro Pro Val Gly Thr Arg Asp Trp Ile Glu Gly Glu Pro Cys
1 5 10 15

<210> 50
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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synthesized from amino acids with no genetic
material as source

<400> 50
Cys Lys Glu Glu Lys Gln Arg Asn Gly Thr Leu Thr Val Thr Ser Cys
1 5 10 15

<210> 51
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 51
Lys Glu Glu Lys Gln Arg Asn Gly
1 5

<210> 52
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 52
Cys Trp Ser Arg Ala Ser Gly Lys Pro Val Cys
1 5 10

<210> 53
<211> 21

09701623-120100

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 53

Pro Thr Ile Thr Cys Leu Val Leu Asp Leu Ala Pro Ser Lys Gly Thr
1 5 10 15

Val Asn Leu Thr Cys
20

<210> 54

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 54

Pro Thr Ile Thr Cys Leu Val Leu Asp Leu Ala Pro Ser Lys Gly Thr
1 5 10 15

<210> 55

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 55

Thr Ser Thr Leu Pro Val Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr
1 5 10 15

Tyr Gln Cys Arg Val Thr His Pro His
20 25

<210> 56
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 56

Pro Thr Ile Thr Ser Leu Val Leu Cys Leu Ala Pro Ser Lys Gly Cys
1 5 10 15

<210> 57
<211> 23
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 57

Cys Val Asn Leu Thr Trp Ser Arg Ala Ser Gly Lys Pro Val Asn His
1 5 10 15

Ser Thr Arg Lys Glu Glu Cys
20

<210> 58
<211> 53
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 58

Cys Thr Trp Ser Arg Ala Ser Gly Lys Pro Val Asn His Ser Thr Arg
1 5 10 15

Lys Glu Glu Lys Gln Arg Asn Gly Thr Leu Thr Val Thr Ser Thr Leu
20 25 30

Pro Val Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys Arg
35 40 45

Val Thr His Pro His
50

<210> 59
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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synthesized from amino acids with no genetic
material as source

<400> 59
Lys Thr Lys Gly Ser Gly Phe Phe Val Phe
1 5 10

<210> 60
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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synthesized from amino acids with no genetic
material as source

<220>
<221> MOD_RES
<222> (4)
<223> S, T

<220>
<221> MOD_RES
<222> (7)
<223> K, R

<220>
<221> MOD_RES
<222> (8)

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<223> G, T

<220>

<221> MOD_RES

<222> (12)

<223> H, T

<220>

<221> MOD_RES

<222> (13)

<223> K, R

<220>

<221> MOD_RES

<222> (16)

<223> G, T

<400> 60

Ile Ser Ile Xaa Glu Ile Xaa Xaa Val Ile Val Xaa Xaa Ile Glu Xaa
1 5 10 15

Ile Leu Phe

<210> 61

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 61

Leu Ser Glu Ile Lys Gly Val Ile Val His Arg Leu Glu Gly Val
1 5 10 15

<210> 62

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic

material as source

<400> 62

Gly Ile Leu Glu Ser Arg Gly Ile Lys Ala Arg Ile Thr His Val Asp
1 5 10 15

Thr Glu Ser Tyr
20

<210> 63

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 63

Lys Lys Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu
1 5 10 15

Leu

<210> 64

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 64

Lys Lys Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys
1 5 10 15

Val Ser Ala Ser His Leu
20

<210> 65

<211> 30

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 65

Lys Lys Leu Arg Arg Leu Leu Tyr Met Ile Tyr Met Ser Gly Leu Ala
1 5 10 15

Val Arg Val His Val Ser Lys Glu Glu Gln Tyr Tyr Asp Tyr
20 25 30

<210> 66

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 66

Tyr Asp Pro Asn Tyr Leu Arg Thr Asp Ser Asp Lys Asp Arg Phe Leu
1 5 10 15

Gln Thr Met Val Lys Leu Phe Asn Arg Ile Lys
20 25

<210> 67

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 67

Gly Ala Tyr Ala Arg Cys Pro Asn Gly Thr Arg Ala Leu Thr Val Ala
1 5 10 15

Glu Leu Arg Gly Asn Ala Glu Leu
20

<210> 68
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 68
Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro Gln Ser Leu Asp
1 5 10 15

<210> 69
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 69
Val Ser Phe Gly Val Trp Ile Arg Thr Pro Pro Ala Tyr Arg Pro Pro
1 5 10 15

Asn Ala Pro Ile Leu
20

<210> 70
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 70

Ser Asp Phe Phe Pro Ser Val Arg Asp Leu Leu Asp Thr Ala Ser Ala
 1 5 10 15

Leu Tyr Arg Glu
 20

<210> 71
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Peptide
 synthesized from amino acids with no genetic
 material as source

<400> 71
 Pro His His Thr Ala Leu Arg Gln Ala Ile Leu Cys Trp Gly Glu Leu
 1 5 10 15

Met Thr Leu Ala
 20

<210> 72
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Peptide
 synthesized from amino acids with no genetic
 material as source

<400> 72
 Trp Val Arg Asp Ile Ile Asp Asp Phe Thr Asn Glu Ser Ser Gln Lys
 1 5 10 15

Thr

<210> 73
 <211> 19
 <212> PRT
 <213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 73

Arg Ala Gly Arg Ala Ile Leu His Ile Pro Thr Arg Ile Arg Gln Gly
1 5 10 15

Leu Glu Arg

<210> 74

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 74

Ala Val Ala Glu Gly Thr Asp Arg Val Ile Glu Val Leu Gln Arg Ala
1 5 10 15

Gly Arg Ala Ile Leu
20

<210> 75

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 75

Ala Leu Asn Ile Trp Asp Arg Phe Asp Val Phe Ser Thr Leu Gly Ala
1 5 10 15

Thr Ser Gly Tyr Leu Lys Gly Asn Ser
20 25

<210> 76
<211> 22
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 76

Asp Ser Glu Thr Ala Asp Asn Leu Glu Lys Thr Val Ala Ala Leu Ser
1 5 10 15

Ile Leu Pro Gly His Gly
20

<210> 77
<211> 39
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 77

Glu Glu Ile Val Ala Gln Ser Ile Ala Leu Ser Ser Leu Met Val Ala
1 5 10 15

Gln Ala Ile Pro Leu Val Gly Glu Leu Val Asp Ile Gly Phe Ala Ala
20 25 30

Thr Asn Phe Val Glu Ser Cys
35

<210> 78
<211> 21
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic

material as source

<400> 78

Asp Ile Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe
1 5 10 15

Asn Val Val Asn Ser
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<210> 79

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 79

Lys Trp Phe Lys Thr Asn Ala Pro Asn Gly Val Asp Glu Lys Ile Arg
1 5 10 15

Ile

<210> 80

<211> 14

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
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<400> 80

Gly Leu Gln Gly Lys Ile Ala Asp Ala Val Lys Ala Lys Gly
1 5 10

<210> 81

<211> 19

<212> PRT

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Peptide
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<400> 81

Gly Leu Ala Ala Gly Leu Val Gly Met Ala Ala Asp Ala Met Val Glu
1 5 10 15

Asp Val Asn

<210> 82

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

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synthesized from amino acids with no genetic
material as source

<400> 82

Ser Thr Glu Thr Gly Asn Gln His His Tyr Gln Thr Arg Val Val Ser
1 5 10 15

Asn Ala Asn Lys
20

<210> 83

<211> 15

<212> PRT

<213> Artificial Sequence

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material as source

<400> 83

Cys Pro Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Cys
1 5 10 15

<210> 84

<211> 25

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Peptide
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material as source

<400> 84

Cys Gly Glu Thr Tyr Lys Ser Thr Val Ser His Pro Asp Leu Pro Arg
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Glu Val Val Arg Ser Ile Ala Lys Cys
20 25

<210> 85
<211> 60
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<400> 85
Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Lys Glu Gly Gly Ile Ser
1 5 10 15

Ile Xaa Glu Ile Xaa Xaa Val Ile Val Xaa Xaa Ile Glu Xaa Ile Leu
20 25 30

Phe Gly Gly Cys Gly Gly Thr Tyr Gln Ser Arg Val Thr His Pro His
35 40 45

Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys Cys
50 55 60

<210> 86
<211> 17
<212> PRT
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<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 86
Lys Trp Phe Lys Thr Asn Ala Pro Asn Gly Val Asp Glu Lys Ile Arg
1 5 10 15

Ile

<210> 87
<211> 62
<212> PRT
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<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic

material as source

<400> 87

Lys Trp Phe Lys Thr Asn Ala Pro Asn Gly Val Asp Glu Lys Ile Arg
1 5 10 15

Ile Lys Lys Lys Lys Ile Ile Thr Ile Thr Arg Ile Ile Thr Ile Ile
20 25 30

Thr Thr Ile Asp Lys Cys Gly Glu Thr Tyr Tyr Ser Arg Val Thr His
35 40 45

Pro His Leu Pro Lys Asp Ile Val Arg Ser Ile Ala Lys Cys
50 55 60

<210> 88

<211> 57

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 88

Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Lys Glu Lys Lys Lys Lys
1 5 10 15

Ile Ile Thr Ile Thr Arg Ile Ile Thr Ile Ile Thr Tyr Ile Asp Lys
20 25 30

Cys Gly Glu Thr Tyr Tyr Ser Arg Val Thr His Pro His Leu Pro Lys
35 40 45

Asp Ile Val Arg Ser Ile Ala Lys Cys
50 55

<210> 89

<211> 19

<212> PRT

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synthesized from amino acids with no genetic

material as source

<400> 89

Ile Ser Leu Thr Glu Ile Arg Thr Val Ile Val Thr Arg Leu Glu Thr
1 5 10 15

Val Leu Phe

<210> 90

<211> 45

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<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 90

Ile Ser Leu Thr Glu Ile Arg Thr Val Ile Val Thr Arg Leu Glu Thr
1 5 10 15

Val Leu Phe Lys Cys Gly Glu Thr Tyr Tyr Ser Arg Val Thr His Pro
20 25 30

His Leu Pro Lys Asp Ile Val Arg Ser Ile Ala Lys Cys
35 40 45

<210> 91

<211> 63

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Peptide
synthesized from amino acids with no genetic
material as source

<400> 91

Lys Trp Phe Lys Thr Asn Ala Pro Asn Gly Val Asp Glu Lys Ile Arg
1 5 10 15

Ile Lys Ile Ser Leu Thr Glu Ile Arg Thr Val Ile Val Thr Arg Leu
20 25 30

Glu Thr Val Leu Phe Lys Cys Gly Glu Thr Tyr Tyr Ser Arg Val Thr
35 40 45

His Pro His Leu Pro Lys Asp Ile Val Arg Ser Ile Ala Lys Cys
50 55 60

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